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BONDAR-CLEGG

ENERGY, MINES AND RESOURCES CANADA
ENERGY, MINES & RESOURCES
CANMET CONTRACTS OFFICE
ROOM 166A-555 BOOTH ST.
OTTAWA, ONTARIO K1A 0G1

Date : 9-APR-86

5-9062-1

RE: 07SQ.23440-5-906
RECOMMENDED VALUES FOR BITHOLITE ORE OKA-2

OUR REPORT 426-0049

ANALYSES:

5 ANALYSES RARE EARTH OXIDES
5 ANALYSES U, K BY DCP
5 ANALYSES CeO, La2O3, BY XRF
5 ANALYSES U FLUOROMETRIC

CONTRACT SERIAL NUMBER: OSQ85-00054

REQUISITION NUMBER: 23440-5-9062-1

CONTRACTOR: BONDAR-CLEGG & COMPANY LTD

TITLE: RECOMMENDED VALUES FOR
BITHOLITE ORE OKA-2

6 pp

AUG 18 1986

MICROMEDIA



METHOD OUTLINES FOR OKA 2

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OKA 2 was analysed for the requested elements by directly coupled plasma spectrophotometry (DCP). In addition cerium, lanthanum and yttrium were determined by energy dispersive x-ray fluorescence. Uranium was determined by fluorometry.

To prepare the samples for analyses by DCP the following digestion process was followed.

1. Weighed subsamples (0.2 gm) were taken of the mixed contents of the submitted bottle #414.
2. The subsamples were then placed in teflon containers to which were then added nitric, hydrofluoric and perchloric acids.
3. The containers were placed on a hot plate and digested until heavy fumes of perchloric acid were generated.
4. After cooling the digestions, hydrochloric acid was added, the containers replaced on the hot plate to warm then the contents bulked to specific volume with de-ionized water.
5. Standards were prepared in a similar manner. These included Can Met standards Syenite 2 and Syenite 3 as well as in house standards of somewhat higher concentrations of some of the other elements requested.
6. Aliquots were taken to facilitate analyses of the higher concentrations.
7. Spectrophotometric determinations were derived from curves prepared from purchased standard solutions or pure salts.

Uranium was determined on subsamples of 0.2 gm weight that were decomposed with nitric acid only.

Subsamples were loosely packed in appropriate containers for analyses by x-ray fluorescence. Although weight is not significant if the specific gravity of the analysed samples is approximate to the calibrating standards, typically, an analytical weight is 5 grams.



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CERTIFICATE OF ANALYSES

TO Department of Supply and Services

Science and Professional Services Directorate

1101 Phase 111 Place du Portage

Hull, Quebec K1A 0S5

MARKED	CeO2	Dy2O3	Er2O3	Eu2O3	Ho2O3	La2O3	Lu2O3	Nd2O3	Pr6O11	Sm2O3	Tb4O7	Gd2O3
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Bottle 414 OKA 2 - 1	12.63	0.232	0.0985	0.278	0.0303	5.52	0.0025	6.145	2.221	1.208	0.0616	0.630
Bottle 414 OKA 2 - 2	12.74	0.229	0.0951	0.273	0.0269	5.73	0.0025	6.360	2.353	1.205	0.0647	0.649
Bottle 414 OKA 2 - 3	12.57	0.234	0.0886	0.267	0.0276	5.64	0.0024	6.153	2.167	1.202	0.0664	0.666
Bottle 414 OKA 2 - 4	13.23	0.238	0.0952	0.259	0.0271	5.47	0.0025	6.287	2.108	1.240	0.0619	0.637
Bottle 414 OKA 2 - 5	13.20	0.243	0.0942	0.262	0.0289	5.81	0.0025	6.126	2.038	1.186	0.0557	0.645



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CERTIFICATE OF ANALYSES

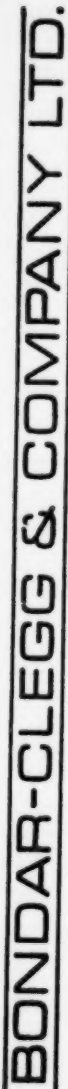
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MARKED	Th02	Tm203	Y203	Yb203	K20	U	Percent	Percent	Percent	Percent	Percent	Percent
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Bottle 414 OKA 2 - 1	3.259	0.0091	0.321	0.0178	0.427	0.07						
Bottle 414 OKA 2 - 2	3.314	0.0091	0.306	0.0179	0.418	0.08						
Bottle 414 OKA 2 - 3	3.370	0.0091	0.299	0.0165	0.425	0.07						
Bottle 414 OKA 2 - 4	3.326	0.0091	0.292	0.0165	0.418	0.04						
Bottle 414 OKA 2 - 5	3.336	0.0091	0.296	0.0170	0.420	0.04						



CERTIFICATE OF ANALYSES

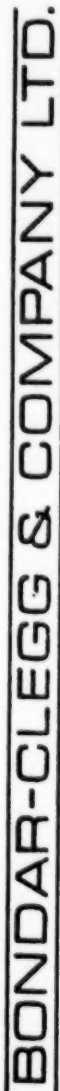
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★★ XRF Results ★★

[illegible]



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** Fluorometric Results **

[illegible]